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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
RENDON, CHRISTIAN E	
ART UNIT	PAPER NUMBER
3714	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,632	SHUMAN ET AL.	
	Examiner	Art Unit	
	CHRISTIAN E. RENDÓN	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *42-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *42-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/22/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is in response to the amendment filed 8/22/08 in which applicant has amended claims 42, 47, 50-52, 59-61, 64-69, 72-75; added claims 76-80; responded to the claim rejections. Claims 42-80 are still pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 42-47, 51-64, 66-72 and 74-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al. (US 6,146,143) in view of Lechner (US 2003/0059743).

1. Huston discloses a simulation system that accurately depicts the operation of a land based vehicle under a wide variety of driving conditions (Huston: col. 1, lines 58-61). The computer (Huston: col. 4, lines 25-27) system allows a person to drive along a roadway (Huston: col. 2, lines 3-4) containing other vehicles and traffic lights (Huston: col. 3, line 14).

2. Regarding claims 42, 60, 64, 68-69 & 76, the prior art discloses a **computer game** or simulator that depicts the operation of a vehicle through a sequence of images (Huston: abstract). The art describes simulating the **road connectivity** through several **roads in varying positions** or roadway network (Huston: col. 4, lines 42-43), different type of **road shapes** by depicting highways, rural and city roads (Huston: col. 4, lines 46-47), **turn restrictions at intersections** through the use of the vehicle's turn signal (Huston: col. 3, line 62) and road features such as **street names** and **address ranges of the roads** that are conventionally associated with roadways (Huston: col. 4, lines

46-48). However the prior art is silent towards who supplies the game developer the database (Huston: col. 4, lines 49-50) required to simulate a driving environment.

3. Lechner discloses creating a database (par. 53, line 29) for a flight simulator based on a predefined mission route (Lechner: abstract). The reference discloses two methods for a terrain model designer or **map developer** for obtaining images required to properly depict a mission. The reference describes the first method as time consuming and requiring an experienced terrain model designer to manually collect, process terrain source data and construct the terrain model (Lechner: par. 10, lines 3-6). The second method is for the terrain model designer to acquire the data from other **map developers** such as the Joint Services Imaging Processing Station (JSIPS), the Gateway Data Navigator (GDN), the United States Imagery and Geo-spatial Information Services (USIGS), the Master Environment Library (MEL), weather service feeds, commercial database or the like (Lechner: par. 7, lines 1-8). Yet the requested information is limited to data the designer, pilot and other personal have appropriate clearance towards (Lechner: par. 7, lines 8-10). The requested information is further limited to only a certain radial distance along a mission route of a **real world locale** (Lechner: par. 3, lines 1-11). Hence the Examiner interpretation of the art teaching the listed **map developers** as **transforming** a larger database of **data on real world locale** into a smaller or **template database** containing data on an **imaginary geographic locale**. Thus the **same entity** that **produces the source database** also **transforms the template database**. Concerning '**imaginary**' data, the Examiner has interpreted '**imaginary**' as describing a template **database** containing altered information. Lechner teaches the map developers limiting or altering data for a template database by providing only authorized data that depicts a portion of the world. Thus the boundaries of this template map misrepresent the real world therefore the Examiner considers the **template database** to contain an **imaginary locale** when compared to the **real world.**

4. Lechner explains obtaining a geographical database from **map developers separate from game developers** as saving time and eliminating the need for an experienced model or map designer (Lechner: par. 10, lines 3-6). Therefore under the motivation provided by Lechner an ordinary artisan would acquire the street database required for the Huston simulator from an experienced **map developer.**

5. Regarding claim 43, the prior combination teaches providing a **database containing navigational functions for a real-world network** by providing a steering wheel **21**, accelerator **22**, brake **23**, clutch **24**, gear shift **25**, turn signal **26** and mirror control mechanism **28** (Huston: col. 3, lines 61-63) to control a vehicle on a roadway network (Huston: col. 4, lines 42-43).

6. Regarding claims 44-46, 61-62, 70 & 77, the prior art discloses realistically incorporating an object into the simulated environment (Huston: col. 7, lines 12-14). Therefore the art teaches providing a **level of accuracy/detail similar to a level provided by the source database**. In addition, Lechner teaches selecting data or **characteristic from a source database to create a template with a similar characteristic** (Lechner: par. 7, lines 8-10). The template database contains only a portion of the real world, the boundaries of this map misrepresents the real world therefore the Examiner considers the **template database** to contain an **imaginary locale** that is **similar to the real world**.

7. Regarding claims 47, 58, 63, 67, 71-72, 75 & 78, the system disclosed by Huston can create various types of roads: highways, rural roads, **city streets**. Therefore the system is able to illustrate the **road density**, **road shape**, and **road width** properly. In addition, the system simulate the features associated with these roads (Huston: col. 4, lines 44-49) like **altitude changes**, **signs**, **buildings** (Huston: fig. 11) and **point of interest** such as an intersection (Huston: fig. 7). In addition, the system provides a sequence of visual images in accordance with the operation of a vehicle (Huston: col. 1, line 64). Therefore the art **checks road connectivity** to provide a proper sequence.

8. Regarding claims 51-52, the prior art discloses storing the software in memory (Huston: col. 4, lines 25-27). It is well known in the art of computing that memory is a computer readable medium such as a **magnetic disk**, an **optical disk**, **RAM**, **ROM** or a **network transmission**. Furthermore, Lechner discloses a company **selling** a commercial database as a **template database** (Lechner: par. 7, lines 8-10) on a computer readable medium (Lechner: par. 16, line 1).

9. Regarding claims 53-56, 66 & 74, Huston discloses **3D** cityscape and landscape (Huston: Fig. 5-7) containing roads with **lane dividers** (Huston: Fig. 7), **buildings** (Huston: fig. 4), **clouds** (Huston: col. 2, line 50), **lane strip markings** (Huston: Fig. 6), **curbs**, **sidewalks** and **crosswalk** (Huston: Fig. 6), **pavement** (Huston: Fig 7), other **vehicles**, traffic lights & pedestrians (Huston: col. 2, line 14). All of theses objects create a virtual world containing **characters**, **game logic**, **vehicles** & **game rules**. Even though **traffic signals**, **signs and speed bumps** are not specifically mentioned they are items that are associated with the roads (Huston: col. 4, lines 44-49), which are necessary to test the user's driving knowledge (Huston: col. 5, lines 32-35). Furthermore **fences, trees, shrubbery and lawns** are graphics that could be displayed to properly illustrate a rural road (Huston: col. 4, lines 46-47).

10. Regarding claim 59, the limitations that are similar to claim 42 are rejected under the same rational. Lechner provides **digital route guidance** in the form of the mission route in the software (Lechner: abstract). Huston provides a **digital route calculation** by having the simulator operator control the weather, traffic events (Huston: abstract) and the road network (Huston: col. 1, line 64).

Claims 48-50, 65, 73 & 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al. in view of Lechner and Graf (4,645,459)

11. The above description of the art combination between Huston & Lechner & the limitations they pertain to are considered with in this art rejection as well. Huston discloses a vehicle simulator to teach people how to drive a car in different scenarios. However neither prior art specifically mentions

altering the data with horizontal and rotational transformations, displaying golf courses and parks, altering the distance, location and orientation of the roads.

12. Graf discusses an aircraft flight simulation (FS) as one of the many possible applications for the invented system (col. 1, lines 15-17). The FS system contains a visual subsystem for a vehicle simulator (col. 1, line 25) that receives flight data from the FS computer and terrain data from a 'gaming area' database (col. 1, lines 17-21) and creates a scene from the perspective of the pilot in the cockpit of the aircraft (col. 1, lines 21-24). The visual simulator uses the terrain and flight path or vehicle control data (col. 1, lines 36-40) to determine the location and viewing direction of the visual system of the vehicle (col. 7, lines 12-14). The scenes viewed by the pilot can comprise of images that are fictitious or represent real-life places from anywhere around the world (col. 4, lines 40-41). The images are organized into several databases: 2D, 3D-one axis & 3D-two axis (col. 10, lines 38-44) providing the designer a large variety of images. Allowing the designer to incorporate whatever he/she deems necessary for the scene or 'gaming area' (col. 1, lines 20-21). Thus Graf teaches depicting a simulated environment of the programmer's choosing therefore it would have been obvious for an ordinary artisan to incorporate this way of thinking into the Huston and Lechner simulator.

13. Regarding claims 48-49 & 79-80, Graf discloses a computer or manual operator generating the scenes that can contain a variety of objects that represent nature: **mountains**, **lakes**, bushes (Graf: col. 10, line 11), **rivers**, etc (Graf: col. 10, line 24), trees, houses, roads, lights, rocks (Graf: col. 5, lines 22-23). Therefore a person or a computer has the means to display a **park**. However the prior art fails to disclose displaying a golf course. It would of have been obvious to one of ordinary skill in the art to include a sand trap object in the 2D surface library to further expand the systems ability to create diverse environments with **golf courses**.

14. Regarding claims 50, 65 & 73, the 'gaming area' contains geographical features (Graf: Fig. 1) like natural structures like 2D rivers or man-made structures like 3D buildings. The operator of the system is able to create a scene from the perspective of the pilot in the cockpit of the aircraft (Graf: col. 1, lines 21-24). The scenes are constructed in three phases: land, water and sky surfaces (col. 5, line 20). Graf discloses the surface library containing different road surfaces (Graf: col. 5, lines 50). A scene can consisting of roads of different widths and shaped in any direction the user or computer sees fit since either the computer or a manual operator create the scenes (Graf: col. 10, lines 7-10; col. 7, lines 1-8). In other words, the operator is able to manipulate or transform the **location, length**, and **orientation**, etc of the roads based on the control functions (Graf: col. 8, lines 14-21).

Response to Arguments

15. Applicant's arguments with respect to claims 42-80 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTIAN E. RENDÓN whose telephone number is (571)272-3117. The examiner can normally be reached on 9 - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dimtry Suhol can be reached on 571-272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Suhol/
Supervisory Patent Examiner, Art Unit 3714

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CER